

Notice of Allowability

Application No.

10/005,936

Examiner

TSE CHEN

Applicant(s)

MASUYAMA ET AL.

Art Unit

2116

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communication filed on April 4, 2008.
2. ☒ The allowed claim(s) is/are 1-9,11-23,25 and 26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other PTOL413B.

/Tse Chen/
Primary Examiner, Art Unit 2116

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicant Attorney Anthony P. Iannitelli on June 12, 2008.

The application has been amended as follows:

- Claim 1, replace with -- A computer system comprising: a power supply; a plurality of server modules; a midplane comprising: a plurality of connectors receiving the plurality of server modules, each connector having a unique predetermined address independent of the plurality of server modules; and an address module obtaining the unique predetermined addresses of the plurality of connectors from the midplane and to calculate a start-up time associated with each connector based on (a) the unique predetermined address for each connector and (b) a multiplication factor associated with a duration of an inrush load of at least one of the plurality of server modules, the start-up times calculated for the plurality of connectors defining a start-up sequence for the plurality of connectors; wherein the computer system couples the power supply to the plurality of server modules based on the start-up times and the defined start-up sequence associated with the plurality of connectors; and a management controller associated with the midplane, the management controller storing the defined start-up sequence for the plurality of server modules and the management

- controller providing sequence redundancy by sequencing power to the plurality of server modules during start-up if the midplane experiences a failure. --.
- Claim 5, replace with -- The system of Claim 4 wherein the plurality of connectors provide an interface between the plurality of server modules and the midplane. --.
 - Claim 6, replace with -- The system of Claim 4 wherein each connector interfaces with one server module. --.
 - Claim 7, replace with -- The system of Claim 4 wherein the midplane provides a unique address to each server module through resistor strapping the two or more resistors --.
 - Claim 8, replace with -- The system of Claim 1 wherein the midplane further provides an interface between the plurality of server modules and the power supply. --.
 - Claim 9, replace with -- The system of Claim 1 wherein the power supply provides power to each server module upon expiration of an associated start-up time for each server module. --.
 - Claim 11, replace with -- The system of Claim 1 wherein the address module includes a timer, the address module further sets the timer with an associated start-up time and the timer counts down from the associated start-up time. --.
 - Claim 12, replace with -- The system of Claim 1 further comprising a switch associated with each server module and the address module, the switch accepts a command from the address module to switch between an on position and an off position. --.

- Claim 13, replace with -- The system of Claim 12 wherein at an expiration of an associated start-up time, the address module switches a selected switch to the on position allowing an associated server module to receive power from the power supply. --.
- Claim 14, replace with -- A method for autonomous power sequencing in a computer system, the method comprising: receiving a plurality of server modules into a plurality of connectors on a midplane, each connector having a predetermined address independent of the plurality of server modules; assigning a unique address to each server module based on the predetermined address of each connector receiving each server module; obtaining the unique address for each server module from the midplane; calculating a start-up time associated with each connector based on (a) the unique address for each connector and (b) an inrush load requirement of each server module; automatically sequencing power to start up the plurality of server modules based on the start-up times for the plurality of connectors; and storing a start-up sequence for the plurality of server modules and providing redundancy by sequencing power to the plurality of server modules during start-up if the midplane experiences a failure. --.
- Claim 18, replace with -- The method of Claim 14 further comprising: setting a timer with an associated start-up time; counting down the timer until the associated start-up time expires; and on an expiration of the associated start-up time, switching a switch to an on position that allows an associated server module to receive power from a power supply. --.

- Claim 20, replace with -- The method of Claim 14 wherein providing the unique address for each server module comprises strapping one or more resistors to the midplane whereby each connector has a unique predetermined address independent of the server modules. --.
- Claim 22, replace with -- The method of Claim 14 wherein automatically sequencing power to the server modules comprises providing power to each server module upon an expiration of an associated start-up time for each server module. --.
- Claim 23, replace with -- A computer system comprising: a plurality of server modules processing data; one or more midplanes associated with the plurality of server modules, the one or more midplanes including a plurality of connectors, each connector having a unique predetermined address independent of the plurality of server modules, each connector interfacing with one of the plurality of server modules; an address module associated with the one or more midplanes, the address module obtaining the unique predetermined addresses from the plurality of connectors and to calculate a start-up time associated with each connector based on (a) the unique address for each connector and (b) at least one start-up characteristic of each server module, the start-up times calculated for the plurality of connectors defining a start-up sequence for the plurality of connectors; a power supply associated with the one or more midplanes, the power supply providing power to start up the plurality of server modules in a sequence determined by the start-up times and the defined start-up sequence associated with the plurality of connectors; a management controller associated with a respective midplane, the management controller storing

the defined start-up sequence for the plurality of server modules and the management controller providing sequence redundancy by sequencing power to the plurality of server modules during start-up if the respective midplane experiences a failure; and one or more chassis housing the plurality of server modules, the one or more midplanes, and the power supply. --.

- Claim 25, replace with – The computer system of Claim 23 further comprising one or more cabinets housing the one or more chassis. --.
- Claim 26, replace with -- An information handling system comprising: a power supply; a plurality of server modules; a midplane comprising: a plurality of connectors receiving the plurality of server modules, each connector having a unique predetermined address independent of the plurality of server modules; and an address module obtaining the unique predetermined addresses of the plurality of connectors from the midplane and to associate each unique predetermined address of the plurality of connectors with a predetermined start-up time stored by the address module, the predetermined start-up times for the plurality of connectors defining a start-up sequence for the plurality of connectors; and wherein the information handling system couples the power supply to the plurality of server modules based on the predetermined start-up times and the defined start-up sequence associated with the plurality of connectors; and a management controller associated with the midplane, the management controller storing the defined start-up sequence for the plurality of server modules and the management controller providing sequence redundancy by

sequencing power to the plurality of server modules during start-up if the midplane experiences a failure. --.

2. The following is an examiner's statement of reasons for allowance: the claims are allowable because none of the prior art(s) cited, anticipate(s) or render(s) obvious a computer system of claim 1 with "... an address module obtaining the unique predetermined addresses of the connectors from the midplane and to calculate a start-up time associated with each connector... a management controller associated with the midplane, the management controller storing the defined start-up sequence for the plurality of server modules and the management controller providing sequence redundancy by sequencing power to the plurality of server modules during start-up if the midplane experiences a failure..." in conjunction -- i.e., viewed as a whole -- with the other limitations of associated claim; a method of claim 14 with "... calculating a start-up time associated with each connector... automatically sequencing power to start up the plurality of server modules based on the start-up times for the plurality of connectors... storing a start-up sequence for the plurality of server modules and providing redundancy by sequencing power to the plurality of server modules during start-up if the midplane experiences a failure..." in conjunction -- i.e., viewed as a whole -- with the other limitations of associated claim; a computer system of claim 23 with "... the address module obtaining the unique predetermined addresses from the connectors and to calculate a start-up time associated with each connector... a management controller associated with a respective midplane, the management controller storing the defined start-up sequence... providing sequence redundancy by sequencing power to the plurality of server modules during start-up if the respective midplane experiences a failure..." in conjunction -- i.e., viewed as a whole -- with the

other limitations of associated claim; a information handling system of claim 26 with "... an address module operable to obtain the unique predetermined addresses of the connectors from the midplane... a management controller associated with the midplane, the management controller storing the defined start-up sequence for the plurality of server modules and the management controller operable to provide sequence redundancy by sequencing power to the plurality of server modules during start-up if the midplane experiences a failure" in conjunction - i.e., viewed as a whole -- with the other limitations of associated claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TSE CHEN whose telephone number is (571)272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571) 272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tse Chen/

Primary Examiner, Art Unit 2116

June 12, 2008